

(22,231)

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1911.

No. 326.

CAMERON SEPTIC TANK COMPANY, APPELLANT,

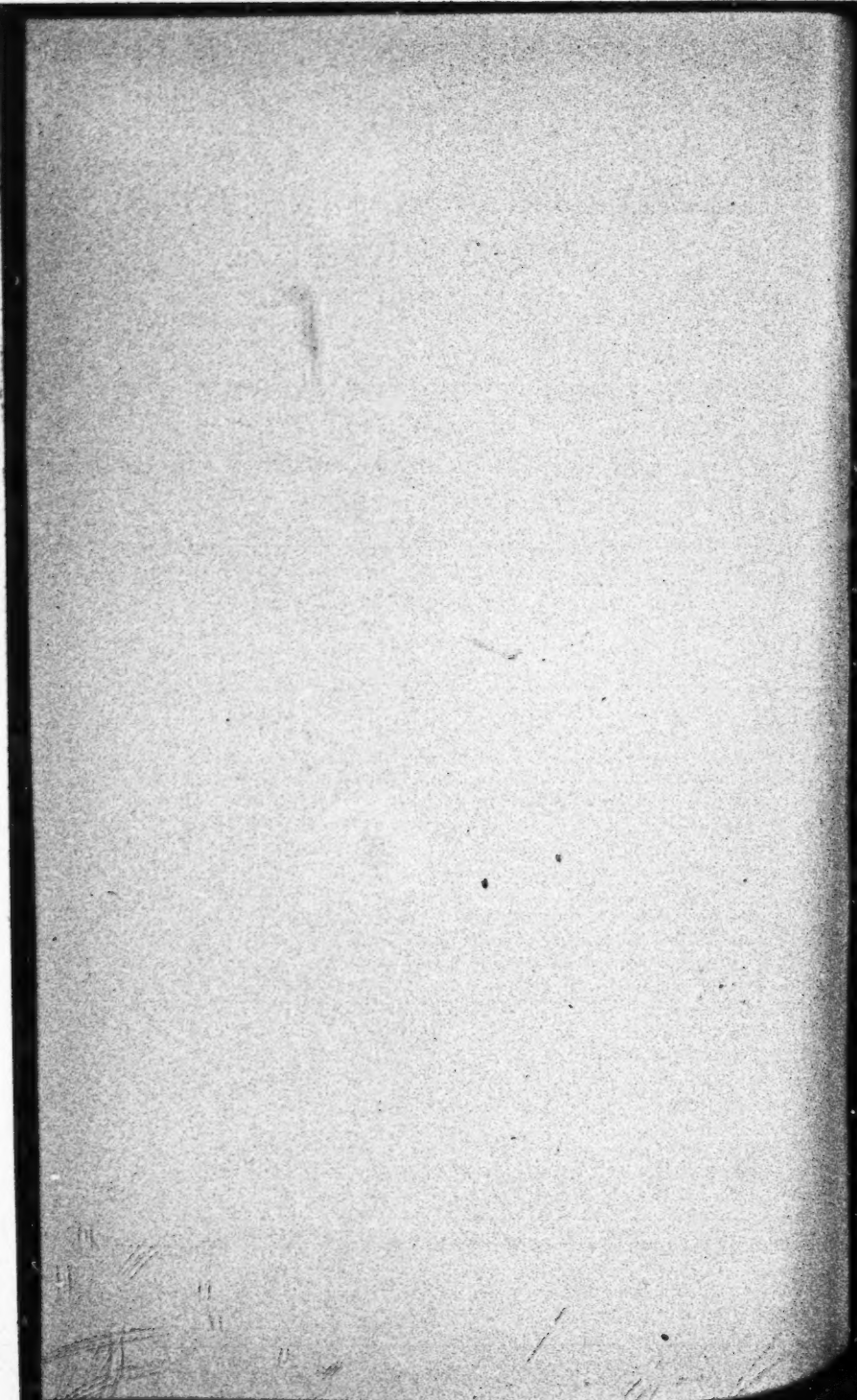
vs.

CITY OF KNOXVILLE, IN THE COUNTY OF MARION,
AND STATE OF IOWA.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR
THE SOUTHERN DISTRICT OF IOWA.

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a CAMERON SEPTIC TANK COMPANY, Complainant,
against
CITY OF KNOXVILLE, Defendant.

b Pleas in the Circuit Court of the United States, Southern District of Iowa, Central Division, at a Term Thereof Begun and Holden in the City of Des Moines, Iowa, on the Second Tuesday in May, the Same Being the 10th Day of May, A. D. 1910.

Before the Honorable Smith McPherson, One of the Judges of said Court.

1 In the Circuit Court of the United States for the Southern District of Iowa. In Equity.

To the Honorable the Judges of the Circuit Court of the United States for the Central Division of the Southern District of Iowa:

Cameron Septic Tank Company, a corporation, organized and existing under and pursuant to the laws of the State of Illinois and having its principal place of business at Chicago in the State of Illinois, brings this its bill of complaint against the City of Knoxville in the County of Marion and State of Iowa, a corporation organized and existing under and pursuant to the laws of the State of Iowa.

And thereupon your orator complains and says, that it is informed and believes and avers that Donald Cameron, Frederick James Commin and Arthur John Martin, subjects of the Queen of Great Britain and residents of Exeter, in the County of Devon, England, were and are the original and first joint inventors and discoverers of a new and useful improvement in Processes of and Apparatus for Treating Sewage fully described in the letters patent hereinafter mentioned, and which, as your orator is informed and believes, had not been known or used by others in this country before said invention or discovery thereof, and had not been patented or described in any printed publication in this or any foreign country before said invention or discovery thereof or more than two years prior to the hereinafter mentioned application for letters patent thereon and had not been in public use or on sale in this country for more than two years prior to such application and had not been abandoned.

And your orator, on information and belief, further shows that said Cameron, Commin and Martin being so as aforesaid the first and joint inventors and discoverers of said improvement did on the 3rd day of October 1899 upon due application therefor, obtain letters patent of the United States for said invention, in due form of law, under the seal of the Patent Office of the United States, signed by the Secretary of the Interior and countersigned by the Commissioner of Patents of the United States, bearing

date the day and year last aforesaid, and numbered 634423, whereby there was granted and secured to said Cameron, Commin and Martin, their heirs, administrators, or assigns, for the term of seventeen years from and after the date of said letters patent, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said invention and improvements, as set forth in said Letters patent, a duly authenticated copy of which is ready in Court to be produced.

And your orator further shows unto your Honors that by an instrument in writing bearing date the 21st day of October, 1901, the said Donald Cameron, Frederick James Commin and Arthur John Martin duly assigned, transferred and set over unto the Septic Tank Foreign and Colonial Syndicate Limited, Exeter, England, the whole right, title and interest in and to said Letters Patent No. 634423, and the invention thereby secured for the United States of America and the territories and dependencies thereof, which assignment was duly recorded in the United States Patent Office on the 4th day of November, 1901, in Liber 1-64, page 108, as by said assignment, or a duly certified copy thereof, with the certificate of record thereto attached, in Court to be produced, will more fully appear.

And your orator further shows that said assignment was recorded in the United States Patent Office on January 17, 1902, in Liber J-64, page 256, with the certificate appended thereto of Jos. G. Stephens, U. S. Consul at Plymouth, England, that the grantors, personally known to him, on the 30th day of December, 1901, appeared before him and acknowledged that they signed and delivered the said instrument as their free and voluntary act and deed for the uses and purposes therein set forth.

3 And your orator further shows that by an instrument in writing dated the 25th day of October 1901, the Septic Tank Foreign and Colonial Syndicate Limited duly assigned to your orator all the right, title and interest in and to said Letters Patent No. 634423, and the invention thereby secured, for the States of Indiana, Illinois and Iowa, which said assignment was duly recorded in the United States Patent Office the 15th day of November 1901, in Liber Z-63, page 229, as by said assignment, or a duly certified copy thereof, with the certificate of record thereto affixed, in Court to be produced will more fully appear.

And your orator further shows that this assignment was re-recorded January 22, 1902, in Liber R-64, page 50, with the certificate appended thereto of Jos. G. Stephens, U. S. Consul at Plymouth England, that Donald Cameron and Frederick J. Commin, whose names are subscribed as Directors, are personally known to him, and appeared before him on the 30th day of December, 1901, and acknowledged that they were and are Directors of The Septic Tank Foreign and Colonial Syndicate Limited and as such assigned and delivered said instrument as their free and voluntary act, and as the free and voluntary act of said Syndicate for the uses and purposes therein set forth. The certificate also sets forth that John H. Baker, whose name is subscribed as Secretary, also personally known to said

Stephens, appeared before him on the same day and made acknowledgment. Furthermore, that the said persons severally acknowledged that the Resolution attached to said instrument is a true copy of a Resolution passed by the Directors of said Syndicate, and severally acknowledged that the seal affixed to said instrument is the seal of said Syndicate, and that it was affixed by authority of said Resolution in their presence as Directors and Secretary thereof.

And your orator further shows that on the 25th day of July 1903, Ernest Cleave, Register of the Joint Stock Companies, certified that the Septic Tank Foreign and Colonial Company limited, originally called the Septic Tank Foreign and Colonial Syndicate Limited, and which name was changed by a special resolution and with the authority of the Board of Trade on the 6th day of April, 1903, was incorporated under the Companies Act, 1862 to 1898, as a Limited Company on the 17th day of December 1898, and that the signature of said Ernest Cleave is certified by H. Clay Evans, Consul General of the United States, London, under date of the 27th day of July 1903; and that this certificate of incorporation was duly recorded in the United States Patent Office on the 26th day of August 1903, in Liber H-68, page 113, as by said certificate, or a duly certified copy thereof, with the certificate of record thereto affixed, in Court to be produced will more fully appear.

And your orator further shows unto your Honors that your orator, on or about January 6, 1904, brought suit in the Circuit Court of the United States for the Northern District of New York, against the Village of Saratoga Springs and the Sewer, Water and Street Commission of Saratoga Springs for the infringement of said Letters Patent No. 634423 as by certified copy of bill and answer in said suit ready in Court to be produced will more fully appear.

And your orator further shows unto your Honors that said suit was fully and elaborately contested on its merits, voluminous proofs being taken, the complainant's printed record comprising 518 pages and the defendant's printed record 1278 pages, and after the case was presented at length on briefs and arguments of counsel the court (Ray J.) took the same under advisement and decided in an opinion filed March 12, 1907, and reported in 1515 Federal Reporter 242, that all the claims in suit, being claims 1, 2, 3, 4, and 21, covering the process, and claims 5, 6, 7, 7, 11, 12, 20, and 22, covering the apparatus, were invalid for want of patentable invention in view of the prior art. And thereupon the said Circuit Court on the 26th day of March 1907, entered a decree dismissing the bill of complaint, as by a certified copy of said decree, ready in Court to be produced will more fully appear.

Your orator further shows that on or about the 15th day of April, 1907, your orator on leave duly petitioned for and granted, filed an appeal from said decree; and the said appeal coming on to be heard before the United States Circuit Court of Appeals for the Second Circuit, and being heard on briefs and arguments of counsel the Court, by Lacombe, J., rendered a unanimous opinion, dated January 7, 1908, and reported in 159 Federal Reporter 453, reversing the said decree as to the process claims 1, 2, 3, 4, and 21, of said patent No. 634423 and holding them to cover a patentable

process and to be infringed by the defendants and remanding the cause to the Circuit Court with instructions to decree in favor of complainant upon claims 1, 2, 3, 4, and 21, and in favor of defendant as to claims 5, 6, 7, 8, 11, 12, 20 and 22, as by a certified copy of said opinion ready in Court to be produced will more fully appear.

Thereupon on January 21, 1908, a Mandate from the Circuit Court of Appeals for the Second Circuit, issued to the Circuit Court of the United States for the Northern District of New York reversing the decree of the Circuit Court and ordering said Circuit Court to enter a decree in favor of the Complainant upon claims 1, 2, 3, 4, and 21, and in favor of defendant as to claims 5, 6, 7, 8, 11, 12, 20 and 22; as by a certified copy of said Mandate, ready in Court to be produced, will more fully appear.

Thereupon the defendant in said suit on or about February 21, 1908, filed a petition in the Circuit Court of Appeals for the rehearing of said cause which was duly considered and, on or about February 7, 1908, the said Circuit Court of Appeals filed a memorandum denying said petition, as by a certified copy of said memorandum, ready in Court to be produced will more fully appear.

6 Thereupon due proceedings being had on or about February 11, 1908, a decree was entered in the United States Circuit Court for the Northern District of New York adjudging said Letters Patent No. 634423 to be good and valid in law as to claims 1, 2, 3, 4, and 21 thereof, the title thereto to be vested in your orator and that the defendants had infringed upon said claims 1, 2, 3, 4, and 21 and upon the exclusive rights of your orator therein and thereunder and adjudging further with regard to claims 5, 6, 7, 8, 11, 12, 20, and 22, as follows: "that since it appears to the Court that said claims 5, 6, 7, 8, 11, 12, 20, and 22 are not limited to that material or substantial part of the thing patented which was truly and justly the patentee's own, therefore as to said claims 5, 6, 7, 8, 11, 12, 20, and 22 the bill of complaint is dismissed." as by said certified copy of said decree ready in Court to be produced will more fully appear.

Your orator further shows that until the said decree entered pursuant to said decision of said Circuit Court of Appeals to the contrary, it had been supposed by your orator that the element designated as a "septic tank" in claims 5, 6, 7, 8, 11, 12, 20 and 22, limited said claims substantially as the same are and have been limited by the disclaimer hereinafter referred to and that said disclaimer was entered and filed without unreasonable neglect or delay, to wit: as soon as your orator was informed by said decree that there had been a mistake as to the scope of said claims.

And your orator further shows on information and belief that through inadvertence, accident or mistake, and without any fraudulent or deceptive intention or any willful default or intent to defraud or deceive the public, the patentees had in and by said claims 5, 6, 7, 8, 11, 12 and 20, claimed more than that of which they were the original and first inventors or discoverers but that a material and substantial part of the thing patented by said claims and each

7 of them was truly and justly and bona fide their own and was definitely distinguishable from the parts claimed without right, and that they had not unreasonably neglected or delayed to enter a disclaimer, and that your orator, the assign of said patentees of the whole interest in said patent, did, on or about February 21, 1908, upon payment of the fee required by law make disclaimer in due form of law of such part of the thing patented by said claims 5, 6, 7, 8, 11, 12, 20, and each of them, as it did not choose to claim or to hold by virtue of the patent or assignment and that such disclaimer was made and is in writing attested by one or more witnesses and recorded in the Patent Office, and that there was no unreasonable neglect or delay in filing it and that thereafter it was and is to be considered as part of the original specification to the extent of the interest of your orator being the whole title in and to said patent, all of which will fully and at large appear by said disclaimer and the certificate of record thereto attached or a duly authenticated copy thereof ready in Court to be produced.

And your orator further shows on information and belief that the defendants in said suit on or about April 12, 1908, on the ground that said decree was erroneous insofar as it was in favor of your orator, petitioned the Supreme Court of the United States for writ of certiorari to said Circuit Court of Appeals directing that said suit be reviewed by said Supreme Court and that the necessary proceedings be taken to that end and said petition was supported by printed argument and other documents but was on or about April 20, 1908, after due consideration denied by said Supreme Court as by the record of said petition and the order denying the same or a duly authenticated copy thereof ready in Court to be produced will fully and at large appear.

8 And your orator further shows unto your Honors, that by virtue of the premises, it became, and now is the sole and exclusive owner of said invention and letters patent and of all the rights and privileges granted and secured, or intended to be granted and secured thereby. And that since your orator became the owner thereof as aforesaid, it has invested and expended large sums of money, and has been to great trouble in and about said invention, and for the purpose of introducing the same into use and making the same profitable to itself and useful to the public; and that said invention has been and is of great benefit and advantage to your orator and the public; and that the public have generally acknowledged and acquiesced in the aforesaid rights of your orator; and your orator believes that it will realize and receive large gains and profits therefrom, if infringements by said defendant and its confederates shall be prevented.

Yet the said defendant, well knowing the premises and the rights secured to your orator aforesaid, but contriving to injure your orator and to deprive it of the benefits and advantages which might, and otherwise would, accrue unto it from said invention, after the assignment of said Letters Patent to your orator as aforesaid, and before the commencement of this suit, did, as your orator is informed and believes, in the Southern District of Iowa and elsewhere in the

United States within the last six years without the license or allowance, and against the will of your orator, and in violation of its rights, and in infringement of the aforesaid letters patent, unlawfully and wrongfully, and in defiance of the rights of your orator make, construct and use and cause to be made, constructed and used sewage apparatus containing and in its structure and operation embracing the invention described, claimed and patented in and by said Letters Patent No. 634423, as limited by said disclaimed and that it still continues so to do; and that it is threatening to continue the aforesaid unlawful acts to a large extent, all in defiance of the rights acquired by and secured to your orator as aforesaid, and to its great and irreparable loss and injury, and by which it has been and still is being deprived of great gains and profits which it might and otherwise would have obtained, but which have been received and enjoyed, and are being received and enjoyed, by the said defendant by and through its aforesaid unlawful acts and doings.

9 And your orator further shows unto your Honors, on information and belief, that said defendant has had notice of said infringements, and of the rights of your orator in the premises, but has disregarded said notice, and refused to desist from said infringements, and still continues so to do.

And your orator further shows unto your Honors, on information and belief, that said defendant has made and realized large profits and advantages from said infringement; but to what extent, and how much exactly, your orator does not know, and prays a discovery thereof. And your orator says that the use of said invention by said defendant and its preparation for and avowed determination to continue the same, and its other aforesaid unlawful acts, in disregard and defiance of the rights of your orator, have the effect to encourage and induce others to venture to infringe said patent in disregard of your orator's rights.

And your orator prays that said defendant, the City of Knoxville, its officers, servants, agents, attorneys, employees, workmen and confederates, and each and every of them, may be perpetually restrained and enjoined by the order and injunction of this Honorable Court from directly or indirectly making, constructing, using, vending, delivering, working or putting into practice, operation or use, or in anywise counterfeiting or imitating the said invention, or any part thereof, or any Process of or Apparatus for Treating Sewage made or operated in accordance therewith, or like or similar to those which it has heretofore made, constructed or used or caused to be made, constructed or used; and that the said defendant may be decreed to pay the costs of this suit; and that your orator may have such further relief, as to this Honorable Court shall seem meet, and as shall be agreeable to equity.

10 May it please your Honors to grant unto your orator the writ of injunction issuing out of and under the seal of this Honorable Court, commanding, enjoining, and restraining the said defendant and its officers, servants, agents, attorneys, and workmen, and each and every of them, during the pendency of this suit, as is

hereinbefore in that behalf prayed in regard to said perpetual injunction.

And forasmuch as your orator can have no adequate relief except in this Court, to the end, therefore, that the said defendant may, if it can, show why your orator should not have the relief hereby prayed, and may, but not upon corporate oath (the oath being expressly waived) according to its best and utmost knowledge, remembrance, information and belief, full, true, direct and perfect answers make to the premises, and to all the several matters hereinbefore stated and charged, as fully and particularly as if severally and separately interrogated as to each and every of said matters, and may be compelled to account for and pay to your orator the profits by it acquired, and the damages suffered by your orator from the aforementioned unlawful acts; and that the Court may assess said profits and damages, and may increase the damages to a sum not exceeding three times the amount thereof, and that the Court may compel all of the infringements in the possession or control of the defendant to be delivered up to be destroyed.

May it please your Honors to grant unto your orator the writ of subpoena issuing out of and under the seal of this Honorable Court directed to the said defendant the City of Knoxville commanding it by a certain day, and under a certain penalty, *and under a certain penalty*, to be and appear in this Honorable Court, then and there to answer the premises and to stand to and abide by such order and decree as may be made against it.

And your orator will ever pray etc.

11 CAMERON SEPTIC TANK COMPANY,
By H. D. WYLLIE,
Secretary and General Manager.

GIFFORD & BULL,
141 Broadway, New York City;
PEIRCE, FISHER & CLAPP,
Marquette Bldg., Chicago,
Of Counsel.

RICHARD PERRY SPENCER,
Pierce Bldg., St. Louis,
Attorney.

STATE OF ILLINOIS,
County of Cook, ss:

On this 22nd day of July, 1909, before me personally appeared H. D. Wyllie who being by me duly sworn deposes and says, that he is the Sec'y & Gen't Mgr. of the Cameron Septic Tank Company, complainant, named in the foregoing bill of complaint that he has read the foregoing bill of complaint subscribed by him, and knows the contents thereof, and that the same is true of his own knowledge, except as to the matters therein stated on information and belief, and as to those matters he believes it to be true.

[SEAL.]

(Sgd.)

GEO. S. PINES,
Notary Public.

(Endorsed:) July 29, 1909, E. R. Mason, Clerk.

Copy.

(True Copy of Sealed Face of U. S. Patent No. 634,423.)

THE UNITED STATES OF AMERICA.

No. 634,423.

Cut of Patent Office Building.

To all — whom these presents shall come:

Whereas Donald Cameron, Frederick J. Commin, and Arthur J. Martin, of Exeter, England, have presented to the Commissioner of Patents a petition praying for the grant of Letters Patent for an alleged new and useful improvement in Processes of and Apparatus for Treating Sewage a description of which invention is contained in the Specification of which a copy is hereunto annexed and made a part hereof and have complied with the various requirements of Law in such cases made and provided, and

Whereas upon due examination made the said Claimants are adjudged to be justly entitled to a Patent under the Law.

Now therefore these Letters Patent are to grant unto the said Donald Cameron, Frederick J. Commin, and Arthur J. Martin, their heirs or assigns for the term of Seventeen years from the third day of October one thousand eight hundred and ninety-nine, the exclusive right to make, use and vend the said invention throughout the United States and the Territories thereof.

In testimony whereof I have hereunto set my hand and caused the seal of the Patent Office to be affixed at the City of Washington this third day of October, in the year of our Lord one thousand eight hundred and ninety-nine and of the Independence of the United States of America the one hundred and twenty-fourth.

WEBSTER DAVIS,

Assistant Secretary of the Interior.

Countersigned:

[Seal of Patent Office, United States of America.]

C. H. DUELL,

Commissioner of Patents.

16

United States Patent Office.

DONALD CAMERON, FREDERICK J. COMMIN, and ARTHUR J. MARTIN,
of Exeter, England.

Process of and Apparatus for Treating Sewage.

*Specification Forming Part of Letters Patent No. 634,423, Dated
October 3, 1899.*

Application Filed March 15, 1897. Serial No. 627,578. (No
model.)

To all whom it may concern:

Be it known that we, Donald Cameron, Frederick James Commin, and Arthur John Martin, subjects of the Queen of Great Britain, and residents of Exeter, in the county of Devon, England, have invented certain new and useful Improvements in Processes of and Apparatus for Liquefying and Purifying Sewage, (for which we have received Letters Patent in England, No. 21,142, dated November 8, 1895, and No. 23,042, dated October 17, 1896; in France, No. 264,570, dated March 2, 1897; in Belgium, No. 126,674, dated March 2, 1897; in Austria, No. 49/1,733, dated March 20, 1899; in Transvaal, No. 1,364, dated March 31, 1897; in India, No. 92, dated August 13, 1897, and No. 93, dated August 13, 1897; in Canada, No. 59,548, dated April 6, 1898; in Victoria, No. 14,047, dated March 29, 1897; in Queensland, No. 3,822, dated April 1, 1897; in South Australia, No. 3,605, dated April 1, 1897; in New Zealand, No. 9,419, dated April 8, 1897; in New South Wales, No. 7,064, dated November 19, 1896, and No. 7,066, dated November 19, 1896; in Cape Colony, No. 1,306, dated March 11, 1897, and in Egypt, under date of registration at Cairo, February 28, 1899;) and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

The object of the invention is to provide an artificial method and apparatus for the liquefaction and purification of sewage on a practical and efficient scale in a natural and simple manner, avoiding the formation of sludge.

The invention consists in certain methods of developing in a flowing current of sewage bacteria capable of dissolving the mass of solid organic matter contained therein, of subsequently utilizing the so-developed bacteria in liquefying the mass of organic matter contained in the flowing current, and of further purifying the effluent liquid.

The invention also consists in the apparatus for carrying out the process.

The process of purification comprises the subjection of the sewage to the dissolving action of anaerobic bacteria and subsequently to exposure to air and light.

In carrying out the process the first step is to develop in a flowing

current of sewage micro-organisms or bacteria of a character and quantity capable of practically liquefying the mass of solid organic matter contained in the flowing current of sewage. This is effected by forming a pool in the flowing current and secluding said pool from light, air, and agitation, while permitting a non-disturbing inflow of the sewage into the pool and an outflow therefrom. In this condition of the pool in the absence of light, air, and agitation the micro-organisms increase at a fabulous rate, being fed by the incoming solid matter of the sewage until a mass of bacteria is developed sufficient in character and quantity to liquefy substantially all the solid organic matter contained in the sewage passing through the pool. During this operation there is formed on the surface of the sewage in the pool a brown scum. This crust of solid substances floating and completely bridging over the water is from two to three inches thick, and although there is a continued inflow of raw sewage and a continued outflow of the liquid effluent this scum remains at about the same thickness and does not increase. This scum attains its thickness of from two to three inches in about a week after the tank is put into use, and although no part of it is removed it continues at the same thickness. After the formation of this practical solid-dissolving mass of bacteria the non-disturbing inflow and outflow are continued until practically all the solid organic matter is dissolved and the outflow is in the form of a liquid without solid particles of sewage. The operation goes on and the flowing current of sewage is continually liquefied. The liquefied sewage as it leaves the septic pool has a slight odor, so slight, however, that it cannot be noticed at a distance of a yard or two, and to relieve it of this slight odor it is subjected to an aerating operation.

In some systems now employed where purification is sought the crude sewage is first treated chemically, so that the solid matter is to a great extent precipitated, and it is only the liquid which is treated by filtration or otherwise. In that process the precipitated solid matter rapidly accumulates in the form of an offensive sludge, which is difficult to dispose of. By this invention the chemical treatment may be entirely dispensed with and the expense of dealing with the precipitated matter is obviated. In such previous systems it has been considered of advantage that there should be contact of the sewage matter with the air, and in the treatment of sewage according to our invention it is of the utmost importance that means be provided for preventing contact with the air and that the chamber in which the bacteriological action takes place should be dark in order to assist the bacteria contained in the sewage to rapidly multiply, as it is a well-known fact that bacteria multiply rapidly in dark places. This exclusion of air and light can be arranged by providing a closed cover to the tank or vessel. This cover may be removed after the sewage has been in the tank several days, as after such tank has been in operation for two or three days the brown scum begins to form at the top and eventually becomes two or three inches thick and serves as an air-tight cover for the sewage below. This scum is formed by bacteriological action and rises in particles

No. 634,423.

Patented Oct. 3, 1899.

D. CAMERON, F. J. COMMIN & A. J. MARTIN.

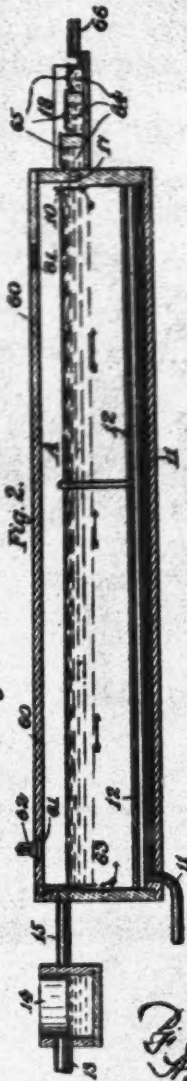
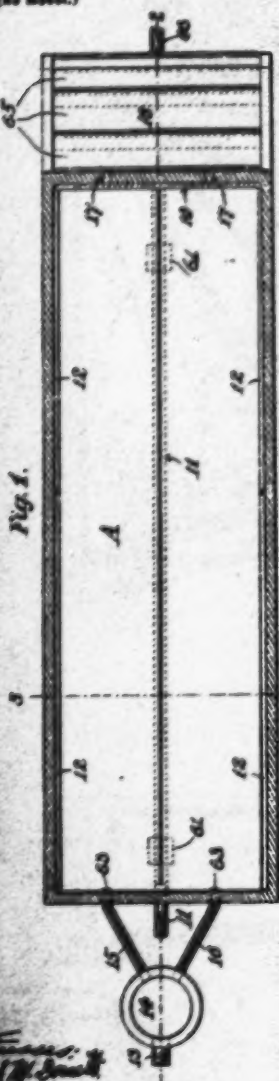
PROCESS OF AND APPARATUS FOR TREATING SEWAGE.

(No Model.)

(Application filed Mar. 14, 1897.)

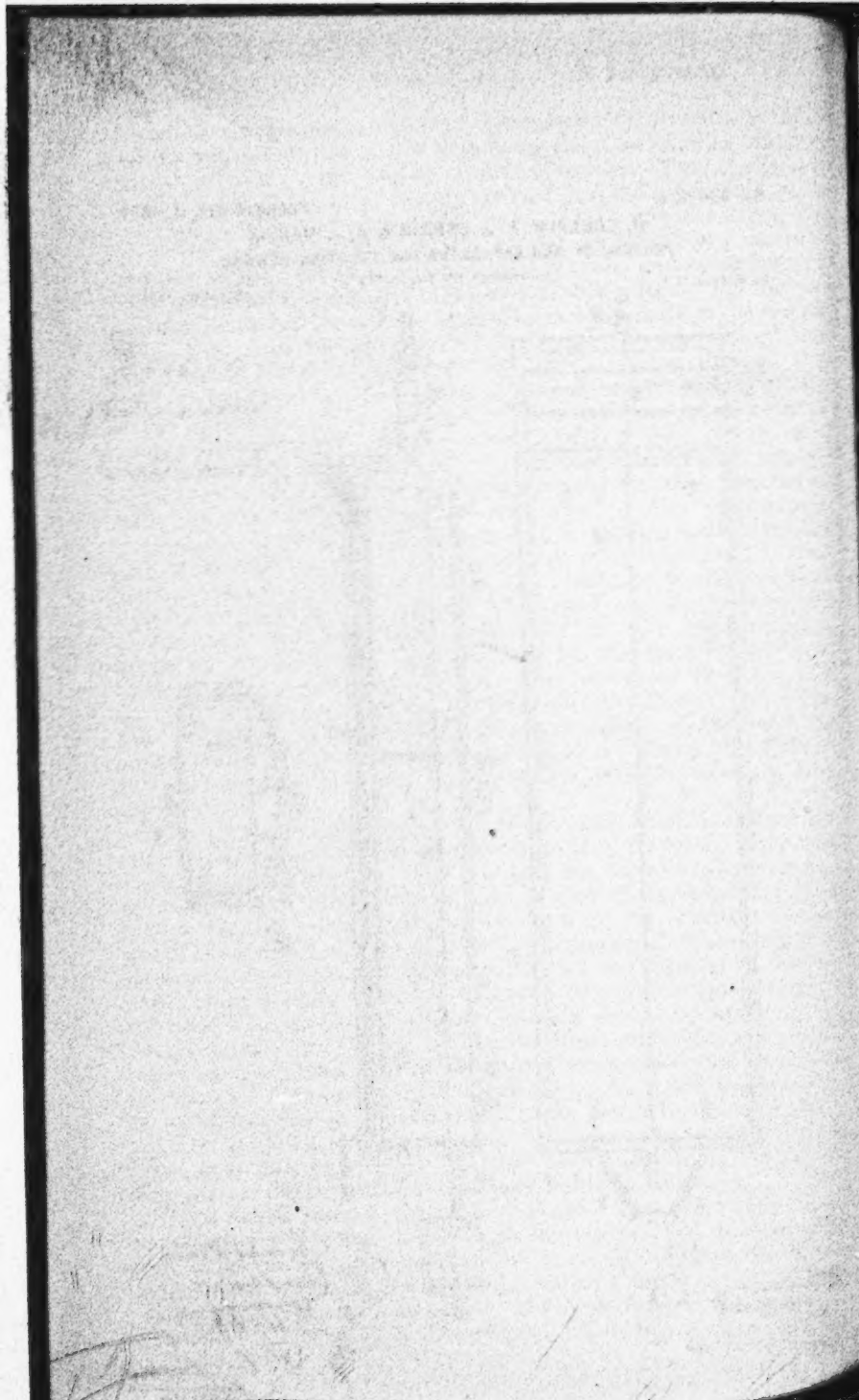
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Cameron Co. } p. 13.
Knowlles



Wm. H. Fells

Inventors:
D. Cameron
F. J. Commin
A. J. Martin
By F. C. Jones
Attorney



No. 634,423.

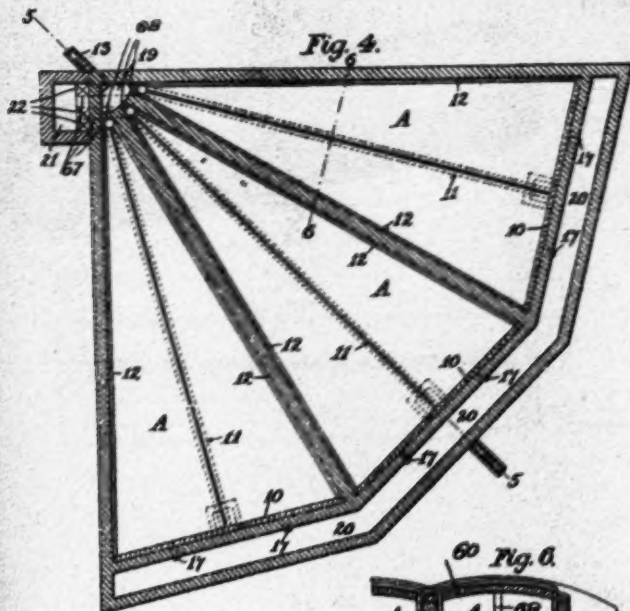
Patented Oct. 3, 1899.

D. CAMERON, F. J. COMMINS & A. J. MARTIN.
PROCESS OF AND APPARATUS FOR TREATING SEWAGE.

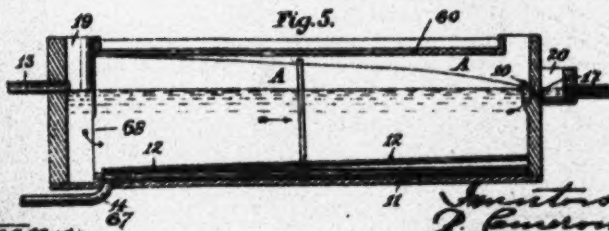
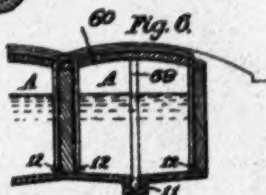
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(Application filed Mar. 18, 1897.)

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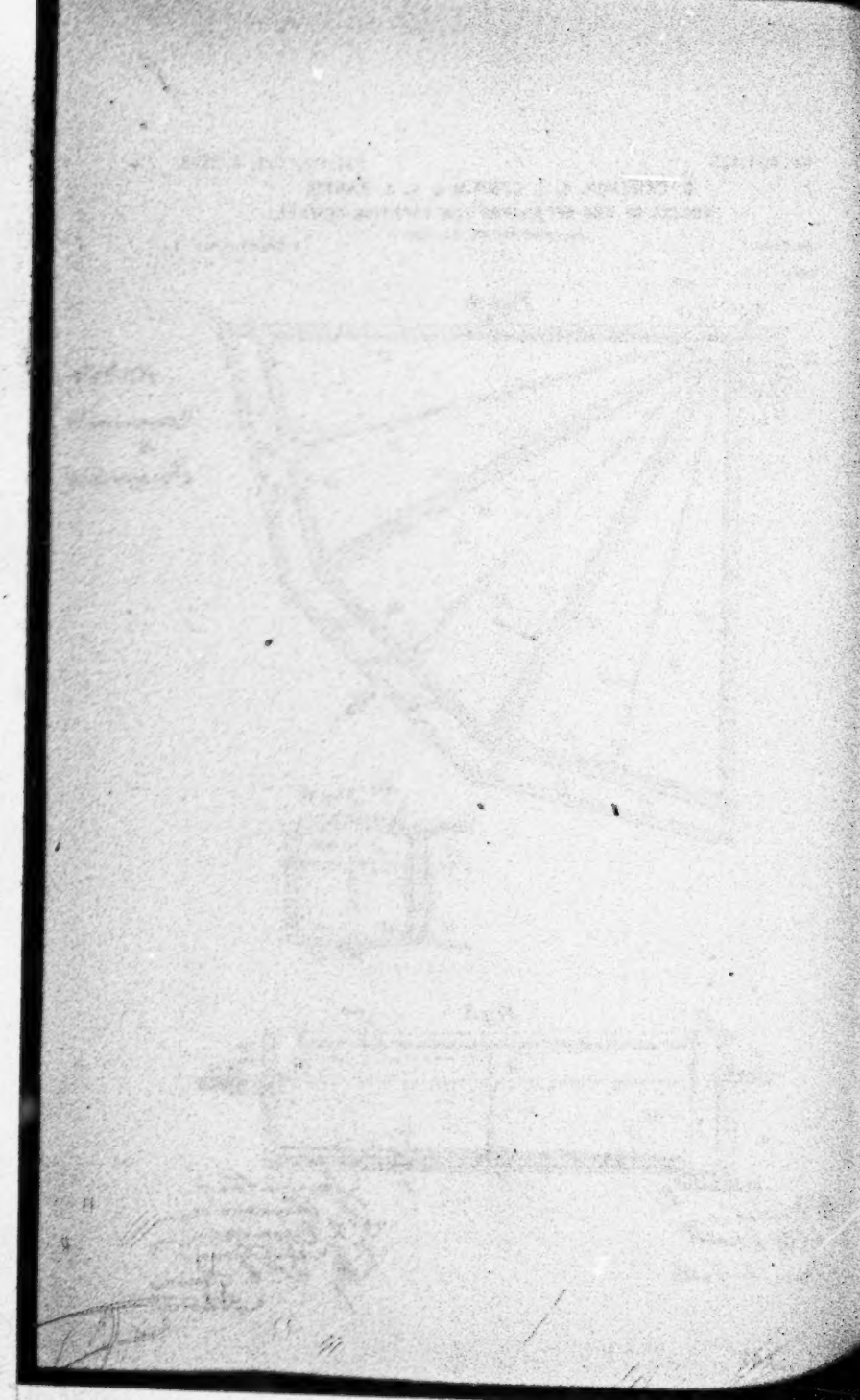


*Wagley
Cameron Co.
N.
Greenville*



*Witness:
L. M. Smith,
Tenn. H. Falls*

*Inventors:
D. Cameron
F. J. Commins
A. J. Martin*



No. 634,423.

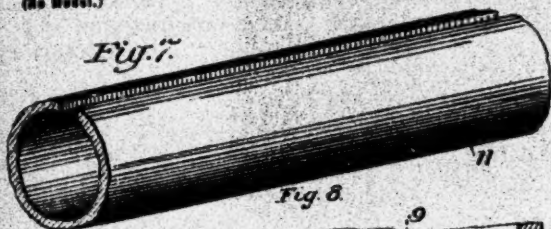
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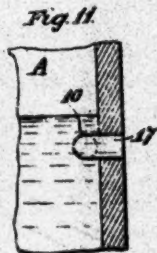
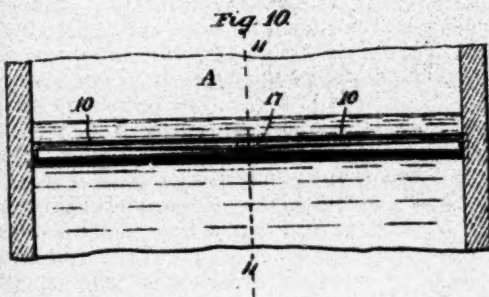
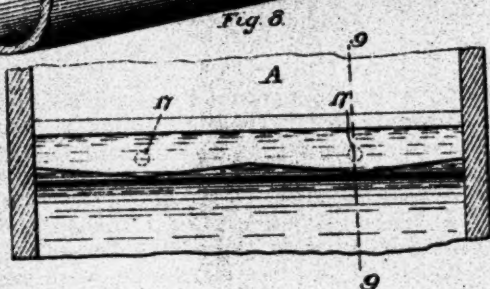
(Application filed Mar. 15, 1897.)

3 Sheets—Sheet 3.

(No Model.)



*No. 326
Cameron & Co. 18
Amoyville*



Witnesses:
S. M. Donath,
P. L. W. Chew

Inventors:
D. Cameron,
F. J. Commin &
A. J. Martin.
By J. B. Jones
Attorney.

from the bottom of the tank, gas forming in and carrying the particles to the top of the tank. After the tank has been in operation sufficiently long for the scum to commence forming the effluent is so free from matter in suspension that it is in a condition to be further treated by any other means—such, for example, as coke-breeze filters—or for irrigation or discharging into rivers and tidal waters.

By this invention crude sewage can be treated for long periods without practically any sludge at all forming in the tank.

The improved apparatus is shown in the accompanying drawings, in which—

(Here follow diagrams marked pp. 13, 14, and 15.)

Figure 1 represents a sectional plan view of a tank for use in the treatment of sewage provided with the present improvements. Fig. 2 represents a longitudinal section on the line 2 2 of Fig. 1. Fig. 3 represents a transverse section on the line 3 3 of Fig. 1. Fig. 4 represents a sectional plan view showing a modified form of such tank. Fig. 5 represents a longitudinal section on the line 5 5 of Fig. 4. Fig. 6 represents a transverse section on the line 6 6 of Fig. 4. Fig. 7 represents a perspective view of the slotted pipe 11 hereinafter referred to. Fig. 8 represents a transverse section of the tank, showing the slotted conduit 10, the slot therein diminishing in width at two points. Fig. 9 represents a longitudinal vertical section through one end of the tank, showing the outlet on line 9 9 of Fig. 8. Fig. 10 represents a transverse section of the tank, showing the slotted conduit therein, the slot in said conduit being shown diminishing in width at one point. Fig. 11 represents a longitudinal vertical section through one end of the tank, in which the outlet-conduit is disposed on line 11 11 of Fig. 10.

Figs. 1, 2, and 3 represent a suitable tank for carrying out our invention, A being the tank, which is constructed of any suitable material, such as cement-concrete. It is shallow in comparison with its other dimensions and is provided with a cover 60, which is preferably made air-tight, and a man hole or holes 61 are provided in such cover and also made air-tight. An opening with a check-valve 62 (see Fig. 2) may be placed in the cover 60 of the tank A to permit of the egress of gases of decomposition. It is not absolutely necessary for the tank to have an air-tight cover, as above described, because the dark scum which forms serves to keep both light and air from the sewage; but we consider it important to provide the cover. The inlet B to the tank discharges into same some distance below the normal water-level and is preferably directed horizontally, or downward, as shown, so as to avoid breaking the scum which forms in the tank when the sewage has been in it for two or three days.

The outlet from the tank is submerged, preferably in the upper half of the depth of the tank, and is extended across the whole or

the greater part of the width of the tank, so as to draw off the clear water below the scum or floating matter without disturbing the latter. It is necessary to discharge the contents of the tank or vessel along an extended line lest the flow should be concentrated to a point or points of discharge and so disturb and carry away the floating matter. The outlet therefore consists of a pipe or conduit 10, which may or may not be closed at its top, following the line along which it is desired that the contents of the vessel or tank A should be discharged and having throughout its length or a part thereof a slot or aperture by which liquid may enter the said pipe or conduit. Such slots or apertures may diminish in size toward the outlet or outlets from the said pipe or conduit, so as to avoid an excessive rate of flow therein near such outlet or outlets, thus maintaining a uniform flow into such pipe or conduit throughout its length. The slots or apertures may be placed in any position along said pipe or conduit 10, so as to admit liquid into the same in a downward, upward, horizontal, or oblique direction, as may be desired.

If desired or found advisable, the slots or apertures may be protected by a deflecting surface or surfaces so placed as to ward off solids or liquids coming from any particular direction. The slot or apertures may also be provided with a strainer for the exclusion of solid matter.

The pipe or conduit 10 may be fixed or movable.

The size of the tank will depend upon the quantity and character of the sewage to be treated. Preferably two or more tanks should be provided, so that any of them may be emptied, if necessary, without interrupting the purification of the sewage.

Another improvement relates to means for the removal of mud or other material deposited in a tank or vessel, such as A, for which purpose the bottom of such tank or vessel may, as shown in Figs. 5 and 6, be sloped toward the slot or apertures in a pipe or conduit 11 in the floor of such tank, or there may be two or more depressions in the floor of such tank, each having a separate slotted pipe or conduit 17. Where two or more pipes or conduits discharge from the same tank, each may be controlled by an independent valve, or two or more such conduits may discharge into one trunk-conduit, and for the purpose of concentrating the flow along one of the branch conduits each may be provided with a flap or slide where it enters the trunk-conduit.

Where mud or other deposited material is to be removed from the bottom of a tank, one or more slotted or perforated pipes 12, leading from a water-main or other source giving sufficient pressure, may be laid on or near the floor of such tank, so that a stream or streams of fluid may be impelled against such deposited material, so as to dislodge it and break it up.

In the arrangement shown in Figs. 1, 2, and 3 the sewage or other liquid coming through the sewer 13 is delivered into a well 14, where grit and other solid matters are allowed to settle. It then passes through the pipes 15 and 16 and the inlets 63 into the tank A, in which it may be treated either chemically, bacteriologically, or otherwise, as desired; but it is preferable to treat it bacteriologically.

After treatment in the tank A it passes into the pipe or conduit 10 through the slots or apertures provided for the purpose, the effect of which is that it is evenly delivered all along the line of the opening or openings into the pipe or conduit and concentration of the flow to one or more points is avoided. From the pipe or conduit 10 the effluent passes through pipes 17 (which may, if desired, be provided with suitable valves) into the aerator 18, which, as shown, is divided into a suitable number of compartments 64. The effluent passes into the first of these compartments, and when this is filled it passes out through an opening at the top into a slightly-sloping surface 65, down which it flows in thin films until it falls into the next compartment 64, this operation being repeated until it arrives at the last compartment, whence it may, if desired, be conveyed through pipe 66 to a filter or filters for further treatment. It will be seen that as the effluent passes over the inclined surface 65 it will be exposed to the action of the air and so aerated. Instead of employing the form of aerator above described an overhanging lip or lips may be provided, over which the effluent falls in a thin film or films exposed on both sides to the air.

The invention also relates to a special form of tank in which a liquid is to be treated for the removal of solid matter by subsidence, flotation, or otherwise, or for containing liquid for any other purpose in connection with which it is desirable that the contained liquid be disturbed as little as possible by liquid entering the tank. This form of tank is illustrated in Figs. 4, 5, and 6. In carrying out this part of our invention the liquid to be treated is delivered to the tank through an inlet opening or conduit having the same cross-section as the tank, at the place of entry, so that the incoming stream may fill the whole cross-section of the tank, such cross-section preferably increasing as to one or both of its dimensions as the inlet is receded from. Such a tank may have the form of a wedge, as shown clearly in Fig. 4, with an inlet 68 at the apex. The cross-section of the tank A may diminish toward the outlet in the same manner as it increases from the inlet, or, as shown, the outlet may consist of a slotted pipe or conduit 10, either open or closed at the top, extending across the tank. Two or more of such tanks A may be placed side by side. In Fig. 4 three are shown; but it will be understood that the set of tanks may form the sectors of a complete circle, having their inlets at the center. The principal advantages of such a tank are: (a) The avoidance of the eddy-currents which would be produced in an ordinary tank and would interfere with the subsidence of suspended matter. (b) The largeness of the cross-section secured at the end farthest from the inlet gives a comparative state of rest which is unattainable with a tank of equal capacity of any other form. (c) The graduation of the deposited matter according to size and density obtained by the gradual reduction of velocity due to increasing cross-section.

In the arrangement shown in Figs. 4, 5, and 6 the sewage or other liquid enters the apparatus through the sewer or pipe 13, from whence it passes through the inlet-well 19 and inlets 68 into the tanks A, where, as in the previous arrangement, it may be treated

either chemically, bacteriologically, or otherwise, as desired. After treatment in the tanks A it passes through the slotted pipes or conduits 10 and pipes 17 into a conduit 20, whence it may be conducted to an aerator, as in the previous arrangement, or direct to a filter or filters, if desired.

It will be seen that the floors of the tanks A are each provided with a slotted pipe or conduit 11 for the purpose of removing matter collecting in the bottoms of such tanks, pipes 12, having slots or apertures, also being provided for the purpose of breaking up or dislodging such deposited matter by means of a stream or streams of fluid.

The ends of pipes 11 may, as shown in Fig. 4, be connected to pipes 67, opening into a well 21, in which sluices 22 are arranged, which can be opened when it is desired to remove the deposited matter from any of the tanks A.

What we claim, and desire to secure by Letters Patent, is—

1. The process of purifying sewage which consists in subjecting the sewage under exclusion of air, of light and of agitation to the action of anaerobic bacteria until the whole mass of solid organic matter contained therein becomes liquefied, and then subjecting the liquid effluent to air and light.

2. The process of liquefying the solid matter contained in sewage, which consists in secluding a pool of sewage having a non-disturbing inflow and outflow, from light, air and agitation until a mass of micro-organisms has been developed of a character and quantity sufficient to liquefy the solid matter of the flowing sewage, the inflow serving to sustain the micro-organisms, and then subjecting said pool under exclusion of light and air and under a non-disturbing inflow and outflow to the liquefying action of the so-cultivated micro-organisms until the solid organic matter contained in the flowing sewage is dissolved.

3. The process of liquefying the solid matter contained in sewage, which consists in secluding a pool of sewage having a non-disturbing inflow and outflow, from light, air and agitation until a mass of micro-organisms has been developed of a character and quantity sufficient to liquefy the solid matter of the flowing sewage, the inflow serving to sustain the micro-organisms, then subjecting said pool under a non-disturbing inflow and outflow and under exclusion of light and air to the liquefying action of the so-cultivated micro-organisms until the solid organic matter contained in the flowing sewage is dissolved, and then subjecting the liquid outflow to an aerating operation.

4. The process of liquefying the solid matter contained in sewage, which consists in secluding a pool of sewage having a non-disturbing inflow and outflow from light, air, and agitation until a mass of micro-organisms has been developed of a character and quantity sufficient to liquefy the solid matter of the flowing sewage, the inflow serving to sustain the micro-organisms, then subjecting said pool under a non-disturbing inflow and outflow and under exclusion of light and air to the liquefying action of the so-cultivated micro-organisms until the solid organic matter contained in the flowing

sewage is dissolved, then subjecting the liquid outflow to an aerating operation, and then to a filtering operation.

5. In an apparatus for the purification of sewage, the combination of a septic tank having an outlet disposed above the bottom and below the normal water-level of the tank, and open across the greater part of the width thereof, and an aerator connected with said outlet.

6. In an apparatus for purifying sewage, the combination of a drain or sewer, a settling-tank, connected therewith and adapted to receive the contents thereof, a septic tank connected with said settling-tank and provided with an outlet disposed above the bottom and below the normal water-level of the tank and open across the greater part of the width thereof.

7. In an apparatus for the purification of sewage, the combination of a septic tank, and an outlet therefor disposed above the bottom and below the normal water-level thereof, said outlet comprising a conduit having a longitudinal slot open across the greater part of the width of the tank.

8. In an apparatus for the purification of sewage, the combination of a septic tank having an outlet consisting of a pipe extending across the greater part of the width of the tank and disposed above the bottom and below the normal water-level thereof, said pipe having an opening in its wall throughout its length for admitting the effluent.

9. The combination of a septic tank for the liquefaction of sewage, and an outlet extending across the greater part of the width of said tank and disposed below the normal water-level of the tank, said outlet comprising a conduit having a longitudinal slot extending the greater part of the length thereof, said slot diminishing in width at any desired point or points to equalize the flow from the tank.

10. The combination of a septic tank for the liquefaction of sewage, an outlet extending across the greater part of the width of the tank and disposed below the normal water-level thereof, said outlet comprising a conduit having a longitudinal slot therein extending the greater part of its length and diminishing in width at a desired point, and a pipe connected with said slotted pipe opposite the diminished portion of the slot for discharging the effluent from said conduit.

11. In an apparatus for purifying sewage, the combination of a septic tank, an inlet disposed above the bottom of the tank and below the normal water-level thereof and occupying the greater part of the width of said tank, and an outlet extending across the greater part of the width of the tank and disposed above the bottom of the tank and below the normal water-level thereof.

12. In an apparatus for purifying sewage, the combination of a septic tank, an inlet occupying the greater part of the width of said tank, and an outlet extending across the greater part of the width of the tank and disposed above the bottom of the tank and below the normal water-level thereof, said outlet comprising a pipe having a longitudinal slot therein extending the greater part of its length.

13. In an apparatus for purifying sewage, the combination of a tank for containing sewage, an inlet extending across the greater

part of the width of the tank, and an outlet extending across the greater part of the width of said tank and disposed above the bottom and below the normal water-level thereof, said outlet comprising a pipe having a longitudinal slot extending practically the whole length thereof, said slot diminishing in width at any desired point or points.

14. The combination of a tank for the purification of sewage, an inlet extending across the greater part of the width of the tank, an outlet extending across the greater part of the width of the tank and disposed above the bottom of the tank and below the normal water-level thereof, and a slotted pipe or conduit disposed in the floor of said tank for the removal of the deposited matter.

15. The combination of a tank for the purification of sewage, an inlet occupying practically the entire cross-sectional area of the tank, an outlet extending across the greater part of the width of the tank and disposed above the bottom of the tank and below the normal water-level thereof, and a slotted pipe or conduit disposed in the floor of said tank for the removal of the deposited matter, said floor sloping toward said pipe.

16. The combination of a tank for the purification of sewage, an inlet open practically the entire cross-sectional area of the tank, an outlet open across the greater part of the width of the tank and disposed above the bottom of the tank and below the normal water-level thereof, and perforated pipes disposed in said tank, and means for delivering fluid under pressure into said pipes.

17. The combination of a tank for the purification of sewage, an inlet occupying practically the entire cross-sectional area of the tank, an outlet open across the greater part of the width of the tank and disposed above the bottom of the tank and below the normal water-level thereof, a slotted pipe or conduit disposed in the floor of said tank for the removal of the deposited matter, said floor sloping toward said pipe, perforated pipes disposed in said tank, and means for delivering fluid under pressure into said pipes.

18. In an apparatus for liquefying sewage, the combination of a tank, an inlet open across the greater part of the width of the tank and disposed below the normal water-level thereof, and an outlet open across the greater part of the width of the tank on a plane above the inlet and below the normal water-level of the tank.

19. The combination of a septic tank, a pipe disposed at the bottom of said tank and provided with openings, and perforated pipes 12 disposed at the bottom of said tank and adapted for delivering fluid under pressure into the tank so as to sweep any deposited matter into said first-mentioned pipe.

20. In an apparatus for the purification of sewage, the combination of a septic tank, means for excluding air and light, a non-disturbing inlet for said tank disposed below the normal water-level thereof and provided with a broadened mouth, a non-disturbing outlet for said tank disposed below the normal water-level thereof and provided with a broadened mouth, and a sewage-conduit connected with said inlet.

21. The process of liquefying the solid matter contained in sew-

age, which consists in secluding a pool of sewage having a non-disturbing inflow and outflow from light, air and agitation until a thick scum is formed on the surface thereof and a mass of micro-organisms has been developed of a character and quantity sufficient to liquefy the solid matter of the flowing sewage, the inflow serving to sustain the micro-organisms, and then subjecting said pool under the cover of said scum and under a non-disturbing inflow and outflow to the liquefying action of the so-cultivated micro-organisms until the solid matter contained in the flowing sewage is dissolved. /

22. In an apparatus for the purification of sewage, the combination of a septic tank, means for excluding air and light, a non-disturbing inlet for said tank disposed below the normal water-level thereof, a non-disturbing outlet for said tank disposed below the normal water-level thereof, and a sewage-conduit connected with said inlet.

DONALD CAMERON.
FRED. J. COMMINS.
ARTHUR J. MARTIN.

Witnesses:

ALBERT ZELLEY.
ALEX. G. MATTHEWS.

Disclaimer.

634,423.—Donald Cameron, Frederick J. Commis, and Arthur J. Martin, Exeter, England. Process of and Apparatus for Treating Sewage. Patent dated October 3, 1899. Disclaimer filed February 21, 1908, by assignee.

Enters its disclaimer—

"From claims 5, 6, 7, 8, 11, 12, 20 and 22, and each of them, of every combination excepting such as contains a tank which is shallow in comparison with its length and in which the septic scum and deposit exist whereby the anaerobic bacteria are presented to the flowing current of sewage."—Official Gazette, March 3, 1908.]

[On left margin of copy:] Disclaimer in Letters Patent No. 634,423.

19 And afterwards, to-wit, March 28th, 1910, there was filed in said Clerk's office in said Cause, a Stipulation which is in words and figures as follows, to-wit:

United States Circuit Court, Southern District of Iowa, Central Division.

In Equity. No. —.

CAMERON SEPTIC TANK COMPANY, Complainant,
vs.
CITY OF KNOXVILLE, Defendant.

Stipulation.

It is stipulated by and between the parties, through their respective counsels, that the demurrer now on file may be withdrawn, without prejudice to the defendant's rights, and that the plea, copy of which is hereto attached, substituted therefor, and filed in lieu thereof and that the complainant set the same down for hearing — argument on Monday March twenty-eighth, 1910, the day now set for hearing said Demurrer.

(Sgd.)

WALLACE R. LANE,
Counsel for Defendant;

(Sgd.)

HENRY LOVE CLARKE,
= Counsel for Complainant.

(Endorsed:) Filed March 28, 1910, E. R. Mason, Clerk.

20 And on the same day, to-wit, March 28, 1910, there was filed in said Clerk's office in said Cause, a Plea, which is in words and figures as follows, to-wit:

United States Circuit Court, Southern District of Iowa, Central Division.

In Equity. No. —.

CAMERON SEPTIC TANK COMPANY, Complainant,
vs.
CITY OF KNOXVILLE, Defendant.

Plea.

This defendant, by protestation, not confessing or acknowledging the matters and things in and by said bill set forth and alleged to be true, in such manner and form as the same are thereby and therein set forth and alleged, for plea to the whole of said bill says:

That the invention patented in the United States Letters Patent issued to Edwin Cameron et als. on a process of and apparatus for treating sewage, No. 634,423, dated October 3, 1899, set forth in said bill, had been previously patented in a foreign country by said patentee, to wit: In the United Kingdom of Great Britain, by Let

tern Patent dated November 8, 1895, and that the said last mentioned patent expired on or before the eighth day of November, 1909, being the expiration of the term for which it was granted, and that the said Letters Patent of the United States, set forth in said bill, had expired and become terminated by law on or before the eighth day of November, 1909, on account of the expiration of said Patent of Great Britain before any equitable or injunctive relief could be had, and as the bill was not filed with the purpose or intent of applying for or obtaining an injunction before the expiration of said British Patent, and for the reason that the parties, by stipulation, agreed that the bill of complaint shall be considered as filed on November 9, 1909, after the expiration of said British Patent, and that the said Cameron et als. British Patent, mentioned in the patent sued on, expired on November 8, 1909.

21 All of which matters and things this defendant avers to be true and pleads to the same complainant's plea, and prays the judgment of this Honorable Court whether it shall be compelled to make other or further answer to the said bill, and prays to be hence dismissed with its costs and charges in this behalf wrongfully sustained.

(Sgd.)

CITY OF KNOXVILLE,
By WALLACE R. LANE.

STATE OF IOWA,
County of Marion, ss:

Wallace R. Lane, being duly sworn, deposes and says that he is duly authorized attorney of the city of Knoxville, the defendant in the above entitled cause, duly authorized in the premises, and that he has read the foregoing plea, subscribed by him; that it is true in point of fact, as he is credibly informed and verily believes and that it is not interposed for the purpose of delay.

Witness my hand and official seal this 26th day of March, 1910.

[SEAL.]

(Sgd.)

MILDRED B. GOLDIZEN.

I hereby certify that the foregoing plea is well founded in point of law.

(Sgd.)

WALLACE R. LANE.

(Endorsed:) Filed March 28, 1910. E. R. Mason, Clerk.

22 And on the same day, to-wit, March 28, 1910, there was filed in said Clerk's office in said Cause, a Further Stipulation, which is in words and figures as follows, to-wit:

United States Circuit Court, Southern District of Iowa, Central Division.

In Equity. No. —.

CAMERON SEPTIC TANK COMPANY, Complainant,
vs.
CITY OF KNOXVILLE, Defendant.

Stipulation.

It is stipulated by and between the parties, through their respective counsel, that for the purpose of the plea filed herein, the bill of complaint shall be considered as filed as of November 9, 1909, after the expiration of the first British patent to Cameron et als., of November 8, 1895, No. 21,142, referred to in the United States patent to Cameron et als. No. 634,423, dated October 3, 1899, set forth in bill of complaint, and that said British patent expired on November 8, 1909.

CAMERON SEPTIC TANK COMPANY,
(Sgd.) By HENRY LOVE CLARKE, *Attorney.*
CITY OF KNOXVILLE,
(Sgd.) By WALLACE R. LANE, *Attorney.*

(Endorsed:) Filed March 28, 1910, By E. R. Mason, Clerk.

23 And afterwards, to-wit: April 20, 1910, there was filed in said Clerk's office in said Cause, an Order sustaining Plea, which is in words and figures as follows, to-wit:

In the Circuit Court of the United States, Southern District of Iowa,
Central Division.

No. 2479. Equity.

CAMERON SEPTIC TANK COMPANY, Complainant,
vs.
CITY OF KNOXVILLE, Defendant.

Order.

The respondent City of Knoxville, heretofore filed a demurrer to the complainant's bill of complaint, and the same was set down for hearing. And afterwards, March 28th, 1910, the parties hereto by counsel for both parties filed a written stipulation herein to the effect that the demurrer now on file may be withdrawn without prejudice to the defendant's rights, and the defendant's plea then filed should be substituted for the demurrer, which said plea was in due form and verified as by law and the general equity rules required. And said plea heretofore was fully argued by counsel on both sides, and

the said plea was submitted to the Court and by the Court taken under advisement.

And now at this time the Court being well advised in the premises sustains said plea and holds the same to be sufficient. And the defendant City of Knoxville will not be compelled to make other or further answer to the said bill of complaint.

Done at Des Moines, Iowa, April 20th, 1910.

(Sgd.)

SMITH McPHERSON, *Judge*.

(Endorsed:) Filed April 20, 1910, Wm. C. McArthur, Clerk. Ent. Record "V", page 15.

24 And afterwards, to-wit, May 10th, 1910, there was filed in said Clerk's office in said Cause, a Stipulation of April 30, 1910, which is in words and figures as follows, to-wit:

In the United States Circuit Court, Southern District of Iowa, Central Division.

In Equity. No. —.

CAMERON SEPTIC TANK COMPANY

vs.

CITY OF KNOXVILLE.

Stipulation.

It is stipulated by and between the parties, by their respective counsel, that the allegation in the heretofore allowed Plea to the effect that

the invention patented in the United States Letters Patent issued to Edwin Cameron et als. on a process of and apparatus for treating sewage, No. 634,423, dated October 3, 1899, set forth in said bill, had been previously patented in a foreign country by said patentee, to wit: In the United Kingdom of Great Britain, by Letters Patent dated November 8, 1895, and that the said last mentioned patent of Great Britain expired on the eighth day of November, 1909, being the expiration of the term for which it was granted,

may be taken as true, and that this Stipulation together with the other stipulations heretofore made disposes of all issues of fact arising out of said Plea.

It is further stipulated and agreed that the original of the patent here sued upon, No. 634,423, and whereof profert was made in the bill of complaint, was duly produced and submitted to the Court on the argument of the said Plea, and may be produced and submitted on the hearing of the appeal that the complainant may take from the decree to be entered herein, and that the transcript of record on said appeal may contain, in lieu of and with the same force and effect as said original patent, a true copy of said patent, said copy to consist of a Patent Office copy of the specifica-

tions and drawings of said patent and, prefacing such Patent Copy, a true copy of the sealed face of said patent as the same appears in the copy thereof annexed to this stipulation.

Dated, Chicago, Illinois, April 30, 1910.

(Sgd.)

HENRY LOVE CLARKE,
Counsel for Complainant.

(Sgd.)

WALLACE R. LANE,
Counsel for Defendant.

26 (True Copy of Sealed Face of U. S. Patent No. 624,423.)

No. 634,423.

Cut of Patent Office Building.

To all — whom these presents shall come:

Whereas Donald Cameron, Frederick J. Commin, and Arthur J. Martin of Exeter, England, have presented to the commissioner of Patents a petition praying for the grant of letters Patent for an alleged new and useful improvement in Processes of and Apparatus for Treating Sewage a description of which invention is contained in the Specification of which a copy is hereunto annexed and made a part hereof and have complied with the various requirements of Law in such cases made and provided, and

Whereas upon due examination made the said Claimants are adjudged to be justly entitled to a Patent under the law.

Now therefore these Letters Patent are to grant unto the said Donald Cameron, Frederick J. Commin, and Arthur J. Martin, their heirs or assigns for the term of Seventeen years from the third day of October one thousand eight hundred and ninety-nine, the exclusive right to make, use and vend the said invention throughout the United States and the Territories thereof.

In testimony whereof I have hereunto set my hand and caused the seal of the Patent Office to be affixed at the City of Washington this third day of October in the year of our Lord one thousand eight hundred and ninety-nine and of the Independence of the United States of America the one hundred and twenty fourth.

WEBSTER DAVIS,

Assistant Secretary of the Interior.

Countersigned:

[Seal of Patent Office, United States of America.]

C. H. DUELL,

Commissioner of Patents.

(Endorsed:) Filed May 10, 1910. Wm. C. McArthur, Clerk, By Roma Woods, Deputy.

27 And afterwards, to-wit, May 10th, 1910, there was filed in said Clerk's office in said Cause, a Decree, which is in words and figures as follows, to-wit:

In the United States Circuit Court, Southern District of Iowa, Central Division.

In Equity. No. —.

CAMERON SEPTIC TANK COMPANY

VS.

CITY OF KNOXVILLE.

Decree.

This cause having come on to be heard on the pleadings and proofs and the counsel for the respective parties having been fully heard and the Court being well advised in the premises, and the Plea of the defendant having been heretofore sustained and held sufficient by the Court. It is Ordered, Adjudged and Decreed, and this Court by virtue of the power therein vested, doth Order, Adjudge and Decree:

That, under the several stipulations between the parties herein, the invention patented in the United States Letters Patent issued to Edwin Cameron et als. on a process of and apparatus for treating sewage, No. 634,423, dated October 3, 1899, set forth in the bill of complaint herein, had been previously patented in a foreign country by said patentee, to wit: In the United Kingdom of Great Britain, by Letters Patent dated November 8, 1895, and that the said last mentioned patent expired on the eighth day of November, 1909, being the expiration of the term for which it was granted; that the said Letters Patent of the United States, set forth in said bill, expired and became terminated by law on said eighth day of November, 1909, on account of the expiration of said patent of Great

23 Britain; and that prior to said expiration of said United States patent here sued upon, no equitable relief was either had or sought by the complainant under the bill of complaint herein, as set forth in the heretofore sustained and sufficient Plea of the defendant; that said expiration of said United States patent was not prevented on said eighth day of November 1909, by any effect of the Treaty of Brussels of December 14, 1900, which Treaty, and the construction thereof, was drawn in question on the Plea in this cause; and that therefore this Court of equity is without jurisdiction in the premises and the complainant would have had a plain and adequate remedy, if any, at law; and the Plea of the defendant is sustained and held to be true in fact and sufficient in law.

And that the bill of complaint be hence dismissed, and the costs be paid by the complainant.

Done at Des Moines, Iowa, May 10th, 1910.

(Sgd.)

SMITH McPHERSON, Judge.

(Endorsed:) Filed May 10, 1910, W. C. McArthur, Clerk, By Anna Woods, Deputy. Ent. Record "V", page 17.

29 And on the same day, to-wit, May 10th, 1910, there was filed in said Clerk's office in said Cause, a Petition for Appeal to the Supreme Court of the United States, which is in words and figures as follows, to-wit:

In the United States Circuit Court, Southern District of Iowa, Central Division.

In Equity. No. —.

CAMERON SEPTIC TANK COMPANY
VS.
CITY OF KNOXVILLE.

Petition for Appeal to the Supreme Court of the United States.

To the Honorable Judges of the Circuit Court of the United States for the Southern District of Iowa, Central Division:

The petition of Cameron Septic Tank Company, complainant in the above entitled cause, respectfully shows unto your honors:—

The above named complainant believing itself to be aggrieved by the order and decree of this Court this day made and entered, whereby the Plea of the defendant is sustained and the bill of complaint herein is dismissed, and which decree is more fully set forth in the record in this cause; and the said sustaining of said Plea and dismissal of the bill having directly drawn in question the construction and application of the Treaty of Brussels of December 14, 1900, and also laws relating to said Treaty, whereby there arises herein a right of direct appeal from this Circuit Court to the Supreme Court of the United States, under the provisions of Section 5 of the Act of March 3, 1891, which Act is entitled "An Act to Establish Circuit Courts of Appeals and to Define and Regulate in certain cases the Jurisdiction of the Courts of the United States, and for other Purposes" (26 Stat. 826); the said complainant hereby prays an appeal from the aforesaid order and decree to the Supreme Court of the United States, for the reasons specified in the assignment of errors as filed herewith; and your petitioner prays that a supersedeas be awarded staying said decree in all respects; and that a transcript of the record in this cause, duly authenticated, may be sent to the Supreme Court of the United States.

Dated May 10th, 1910.

(Sgd.)

HENRY LOVE CLARKE,
Solicitor and of Counsel for Complainant.

(Endorsed:) Filed May 10, 1910, W. C. McArthur, Clerk, By Borne Woods, Deputy.

31 And on the same day, to-wit, May 10th, 1910, there was filed in said Clerk's office in said Cause, an Assignment of Errors, which is in words and figures as follows, to-wit:

In the United States Circuit Court, Southern District of Iowa, Central Division.

In Equity. No. —

CAMERON SEPTIC TANK COMPANY

VS.

CITY OF KNOXVILLE.

Assignment of Errors.

Now comes the said complainant, Cameron Septic Tank Company, by its solicitor and counsel, and says that in the order and decree this day entered herein, manifest error has occurred, to the prejudice of this complainant, and especially in the following particulars:—

1st. The Court erred in entering the decree dismissing the bill of complaint.

2nd. The Court erred in sustaining the Plea of the defendant.

3rd. The Court erred in holding that the United States patent issued upon expired on the eighth day of November, 1909, and that said expiring of said patent was due to the expiration, on said date, of the British patent named in the defendant's Plea.

4th. The Court erred in not holding that the United States patent issued upon is still in force and that the term thereof will not expire until October third, 1916, seventeen years from the date, October third, 1899, on which said patent was granted.

5th. The Court erred in not holding that the Treaty of Brussels of December 14, 1900, operated and had the effect, on November 8, 1909, of preventing the expiration of the term of said United States patent on, and because of, the expiration of the aforesaid British patent on said date of November 8, 1909.

6th. The Court erred in not holding that the said Treaty of Brussels, went into effect on September 14, 1902, and then and there freed the said United States patent from any dependance on the term of any prior foreign patent, and then and there secured and confirmed to said United States patent the full seventeen years' term named in the granting clause on the sealed face of the said patent; and in not holding that no subsequent legislative or other act has repealed or abrogated said effect of said Treaty.

7th. The Court erred in not overruling the Plea of the defendant and in not holding it to be disproved.

8th. The Court erred in not entering a decree for complainant as prayed in the bill.

In all of which respects this complainant claims that the aforesaid order and judgment and decree of said Circuit Court was erroneous, illegal and invalid, and therefore this complainant prays that the said order and judgment and decree may be reversed, set aside and

held for naught, and this Court directed to enter a decree for the complainant as prayed in the bill.

(Sgd.)

HENRY LOVE CLARKE,
Solicitor and of Counsel for Complainant.

(Endorsed:) Filed May 10, 1910, W. C. McArthur, Clerk, By
Roma Woods, Deputy.

33 And on the same day, to-wit, May 10, 1910, there was filed
and entered of Record in said Clerk's office in said Cause, an
Order Allowing Appeal, which is in words and figures as follows, to-
wit:

In the United States Circuit Court, Southern District of Iowa, Central
Division.

In Equity. No. —.

CAMERON SEPTIC TANK COMPANY

vs.

CITY OF KNOXVILLE.

Order Allowing Appeal.

Now comes the complainant, Cameron Septic Tank Company, by
its solicitor and counsel, and files an assignment of errors and a peti-
tion praying an appeal to the Supreme Court of the United States
from the order and judgment and decree this day entered in this
cause, said petition also praying that a supersedeas be awarded stay-
ing said decree in all respects; Wherefore, It is Ordered that the
appeal be and is hereby allowed to the Supreme Court of the United
States from the order and judgment and decree this day entered in
this cause, and that a supersedeas be and hereby is awarded staying
said decree in all respects pending the prosecution and decision of
said appeal, and that the amount of the bond upon said appeal be
and hereby is fixed at the sum of Two Hundred Dollars (\$200.00),
said bond to be approved by the Clerk of this Court; and it is fur-
ther Ordered that upon said approval of said bond and the filing of
the same with the clerk of this Court, the clerk of this Court shall
forthwith make out and certify and transmit to the clerk of the
Supreme Court of the United States a full, true and complete
transcript of the record and proceedings in this cause, the
cost of such transcript to be paid by the complainant upon
demand of the clerk of this court.

Done at Des Moines, Iowa, May 10th, 1910.

(Sgd.)

SMITH McPHERSON, *Judge.*

(Endorsed:) Filed May 10, 1910, W. C. McArthur, Clerk, By
Roma Woods, Deputy. Ent. Record "V", page 18.

34 And on the same day, to-wit, May 10, 1910, there was filed
in said Clerk's office in said cause, a Bond on Appeal, which
is in words and figures as follows, to-wit:

in the United States Circuit Court, Southern District of Iowa, Central Division.

In Equity. No. —

CAMERON SEPTIC TANK COMPANY

VS.

CITY OF KNOXVILLE.

Bond on Appeal.

Know all men by these presents, that we, Cameron Septic Tank Company, a corporation organized and existing under and by virtue of the laws of the State of Illinois, as principal, and National Surety Company, as surety, are held and firmly bound unto the City of Knoxville, in the County of Marion and State of Iowa, a municipal corporation organized and existing under and pursuant to the Laws of the State of Iowa, in the full and just sum of Two Hundred Dollars (\$200.00) to be paid to said City of Knoxville, its certain attorney, successors and assigns; to which payment, well and truly to be made, we bind ourselves, our successors and assigns, jointly and severally, by these presents Sealed with our seals, and dated this 10th day of May in the Year of our Lord one thousand nine hundred and ten.

[Seal of National Surety Company.]

[Seal of Cameron Septic Tank Co.]

Whereas, lately at a session of the Circuit Court of the United States for the Southern District of Iowa, Central Division, in a suit depending in said court, between said Cameron Septic Tank Company, complainant, and said City of Knoxville, defendant, a decree was rendered, on May 10, 1910, against the said complainant, sustaining the Plea of the defendant and dismissing the bill of complaint of said complainant, and the said complainant has obtained an appeal to the Supreme Court of the United States and is about to file a copy thereof in the clerk's office of said Supreme Court to reverse the decree in the aforesaid suit;

Now, the condition of the above obligation is such, that if the said Cameron Septic Tank Company shall prosecute its appeal to effect, and answer all damages and costs if they fail to make their appeal good, then the above obligation to be void; otherwise the same shall stand and remain in full force and virtue.

Dated Chicago, Illinois, May 10, 1910.

[SEAL.]

CAMERON SEPTIC TANK COMPANY,

By H. D. WYLLIE, *Gen'l Manager.*

Attest:

(Sgd.) GEO. G. YEOMANS, *Director.*

[SEAL.]

NATIONAL SURETY COMPANY.

By HOWARD H. McKEE,

Resident Vice-President.

(Sgd.) M. B. MILLER, *Resident Asst Secretary.*

Approved:

WM. O. McARTHUR,

Clerk of the United States Circuit Court for

the Southern District of Iowa, Central Division,

By ROMA WOODS, *Deputy.*

(Endorsed:) Filed May 10, 1910, Wm. C. McArthur, Clerk, By
Roma Woods, Deputy.

57 And on the same day, to-wit, May 10, 1910, there was
filed in said Clerk's office in said Cause, a Precept for Ap-
pearance, which is in words and figures as follows, to-wit:

In the United States Circuit Court, Southern District of Iowa, Central
Division.

In Equity. No. —.

CAMERON SEPTIC TANK COMPANY

VS.

CITY OF KNOXVILLE

Precepts for Record.

To the clerk of the above entitled court:

You will please prepare a transcript of record in this cause, to be
filed in the office of the Clerk of the Supreme Court of the United
States, under the appeal heretofore presented to said Court, and in-
clude in the said transcript the following pleadings, proceedings
and papers on file, to-wit:

1st. The bill of complaint, annexing thereto a copy of the hereto-
fore stipulated copy of the sealed face of the patent sued upon, and
also one of the herewith transmitted Patent Office copies of said
patent sued upon, being United States Patent No. 634,423.

2nd. The stipulation, filed March 28, 1910, agreeing that the de-
murrer may be withdrawn and a Plea substituted therefor.

3rd. The Plea of defendant.

4th. The farther stipulation, also filed March 28, 1910, agree-
ing, among other matters, that the therein named British patent ex-
pired on November eighth, 1909.

5th. The order of Court entered April 20, 1910.

6th. The stipulation dated April 30, 1910.

7th. The decree of the Court dated May 10, 1910.

38 8th. The petition for appeal.

9th. The assignment of errors.

10th. The order allowing the appeal.

11th. The bond on appeal.

12th. This precept.

Said transcript to be prepared as required by law and the rules
of this court, and the rules of the Supreme Court of the United
States, and to be filed forthwith in the office of the clerk of said
Supreme Court at Washington, D. C.

Dated May 7, 1910.

(Sgd.)

HENRY LOVE CLARKE,

Solicitor and of Counsel for Complainant.

Approved:

(Sgd.)

WALLACE R. LANE,

Solicitor and of Counsel for Defendant.

(Endorsed:) Filed May 10, 1910. Wm. C. McArthur, Clerk, By
Roma Woods, Deputy.

29 UNITED STATES OF AMERICA, vs.:

To City of Knoxville, in the County of Marion and State of Iowa,
and in the Southern District of Iowa, Central Division, Greeting:

You are hereby cited and admonished to be and appear at a Supreme Court of the United States, at Washington, within 30 days from the date hereof, pursuant to an order allowing an appeal, entered and filed in the Clerk's Office of the Circuit Court of the United States, Southern District of Iowa, Central Division, wherein Cameron Septic Tank Company, a corporation of Illinois, is appellant and you are appellee, to show cause, if any there be, why the decree rendered against the said defendant as in the said order mentioned, should not be corrected, and why speedy justice should not be done to the parties in that behalf.

Witness the Honorable Melville W. Fuller, Chief Justice of the Supreme Court, this twenty-seventh day of May, in the year of our Lord one thousand nine hundred and ten.

SMITH McPHERSON, *Judge.*

Service of copy hereof accepted this twenty seventh day of May 1910.

WALLACE R. LANE,
Of Counsel for Defendant-Appellee.

[Endorsed:] No. —. Supreme Court of the United States. Cameron Septic Tank Co. vs. City of Knoxville. Citation. To the Supreme Court of the United States. Filed June 2, 1910. Wm. C. McArthur, Clerk, By Roma Woods, Deputy.

40 United States Circuit Court, Southern District of Iowa.

I, Wm. C. McArthur, Clerk of said Court for said District, do hereby certify that the foregoing is a full, true and complete copy of the Pleadings, Proceedings and Record Entries as designated in the Praeipe for Record filed May 10, 1910, in the case of Cameron Septic Tank Company, Complainant, vs. the City of Knoxville, Defendant, as full, true and complete as the originals of the same now remain on file and of record in my office.

In testimony whereof, I have hereunto set my hand and affixed the seal of said Court at office in the City of Des Moines in said District, this 13th day of June, A. D., 1910.

[Seal U. S. Circuit Court, Southern District Iowa.]

WM. C. McARTHUR,
*Clerk U. S. Circuit Court,
Southern District of Iowa.*

Endorsed on cover: File No. 22,231. S. Iowa C. C. U. S. Term No. 326. Cameron Septic Tank Company, appellant, vs. City of Knoxville, in the county of Marion and State of Iowa. Filed June 2nd, 1910. File No. 22,231.